

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Appln. of: DUSAN PAVCNIK, ET AL.

Appln. No.: 10/662,216

Filed: 09/12/2003

For: RETRIEVABLE FILTER

Attorney Docket No: 8627-314 (PA-5350-RFB)

Examiner: Amy T. Lang

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REPLY BRIEF UNDER 37 C.F.R. §41.41

This Reply Brief is filed in response to the Examiner's Answer mailed on May 14, 2010.

I. SUMMARY OF CLAIMED SUBJECT MATTER

The Examiner's answer agreed with the Applicants' Summary of Claimed Subject Matter.

II. STATUS OF CLAIMS

Claims 1, 3, 8-18, 20 and 22-44 stand finally rejected by the Examiner. Claims 2, 4-7, 14, 15, 17, 19, and 21 have been canceled and Claims 41-43 have been withdrawn from consideration. The rejections of claims 1, 3, 8-13, 16, 18, 20, 22-40 and 44 have been appealed and the rejections thereof have been maintained in the Examiner's Answer.

III. GROUNDS OF REJECTION

The Examiner's answer agreed with the Applicant's Summary of the Grounds of Rejection. The Examiner has withdrawn the Drawings Objection and the rejections of claims 10, 14-17, 22-24, 34 and 37 under 35 U.S.C. § 112, second paragraph. The remaining Grounds of Rejection are as follows:

A). The rejections under 35 U.S.C. § 102(e) that Claims 1, 3, 8-17, 20, 22, 24-26 and 36 are anticipated by U.S. Patent No. 6,712,843 to Yassour et al. ("*Yassour*").

B). The rejections under 35 U.S.C. § 103(a) that Claims 18, 27-35 and 37-39 are unpatentable over Yassour; that Claims 23 and 40 are unpatentable over Yassour in view of U.S. Patent No. 6,342,063 to DeVries et al. ("*DeVries*"); and that Claim 44 is unpatentable over Yassour in view of U.S. Publication No. 2002/0116024 to Goldberg et al. ("*Goldberg*").

IV. REPLY TO EXAMINER'S ANSWER

A. Rejection Under 35 U.S.C § 102(e)

1. Independent Claim 1: Independent Claim 1 includes a filter with an apical hub and a plurality of divergent legs, at least one of the divergent legs secured at its first end to the apical hub; a first attachment member separate from, but attached to the second end of at least one of the divergent legs; a stent; and a second attachment member separate from, but attached to the stent. The first and second attachment members are separate from, but attachable to one another to releasably attach the filter to the stent.

Responsive to the Examiner's Answer regarding the teaching in *Yassour* of an apical hub and a plurality of divergent legs, at least one of which is secured at a first end to the apical hub, Applicants respectfully traverse this interpretation of the teachings in *Yassour*. The Examiner refers to Figure 4B and Figure 8 to teach a filter with a plurality of divergent legs and an apical hub, yet refers to Figure 6D to teach the remaining elements of Claim 1. The Examiner is thus improperly combining three different embodiments of *Yassour* to teach Applicants' claimed invention. Such combination is not only improper, but fails to teach each and every element of Claim 1.

For example, *Yassour* fails to teach, in either Figure 4B or Figure 8, a filter comprising an apical hub and a plurality of divergent legs being secured at a first end to the apical hub. Rather, Figure 4B teaches a filtering device 50 comprising "a filtering unit 52 which is generally in the shape of a thimble and is made of fine wire woven into a net having a mesh...connected by connecting legs 54 to an anchoring member 56." See col. 7, lines 12-18. The Examiner's Answer merely refers to "the

distal end of the filter” as the apical hub. However, as provided in further detail below, *Yassour* does not teach a plurality of divergent legs. Moreover, Figure 4B does not teach, and the Examiner fails to point out, an apical hub to which a first end of at least one divergent leg is attached. The distal end of the filter in Figure 4B is nothing more than the distal portion of the thimble-like wire net filtering unit, which clearly does not anticipate an apical hub to which divergent legs are secured.

Furthermore, Figure 8 teaches a completely different embodiment of a filtering device 200 formed of an anchoring member 202, a filtering unit 204, and a trap element 206. The filtering unit 204 is provided with a plurality of horseshoe-like shaped openings. The Examiner’s Answer, at page 4, states that the member 206 “overlaps the instantly claimed apical hub.” This, however, is a misrepresentation of the teachings of *Yassour*. Even if member 206 overlaps an “apical hub,” Figure 8 does not teach, and the Examiner fails to point out, a plurality of divergent legs attached thereto. Thus, combining the asserted apical hub 206 with any other embodiment of *Yassour* would be an improper piecemeal interpretation of the various embodiments of *Yassour*.

Moreover, *Yassour* fails to teach a plurality of “divergent legs.” The Examiner’s Answer defines the wires of the filtering unit 100 as divergent “since each wire differs from the others by moving in its own direction and trajectory.” The Examiner’s Answer, at page 9, further states that the wires “must diverge at least in part in order to form the diamond shapes found in Figures 15A and 15B.” Applicants respectfully traverse this interpretation of the claimed “divergent legs.” Regardless of whether the wires in *Yassour* diverge *in part* to form diamond shapes, one of ordinary skill in the art would appreciate that the wires forming the interwoven

"thimble-like metallic net" in *Yassour* clearly do not anticipate Applicants' claimed "divergent legs," which branch out or diverge from a central point.

Additionally, *Yassour* does not teach first and second attachment members "separate from, but attached to" the filter and the stent, respectively. The Examiner's Answer states that the hooks (114) and the narrowed portion (109) in *Yassour* overlap the claimed first and second attachment members, respectively, i.e., "[t]he hooks and narrowed portion of *Yassour* are divided and disconnected from the filter and stent since each forms a separate function with a separate structure." See Examiner's Answer, page 9. The Examiner's Answer further states, at page 10, that "the hooks and narrowed portion are not part of the stent and filter, even though they are attached to them, since each is a separate element and therefore separate from the filter and stent."

Applicants respectfully disagree with the Examiner's interpretation of the limitation "separate from, but attached to" with respect to the first and second attachment members relative to the filter and the stent. With respect to the Examiner's asserted teaching in *Yassour* of "a first attachment member separate from, but attached to the filter," *Yassour* teaches hooks 114 projecting from the filtering unit 100, the hooks being shown in Figure 6F as an integral part of a wire of the filtering unit 100. There is no teaching, whatsoever, in *Yassour* that the hooks 114 are "separate from, but attached to" the filtering unit 100.

With respect to the Examiner's asserted teaching in *Yassour* of "a second attachment member separate from, but attached to the stent," *Yassour* teaches an anchoring member 102 "with a front end 106 being slightly narrowed at portion 109." The narrowed portion 109 is not "separate from, but attached to" the anchoring

member 102. There is no reasoning, whatsoever, to support an assertion that a narrowed portion of a structure is a different unit or that it can become divided or detached from the structure. To state otherwise is analogous to stating, e.g., that the sharpened tip of a pencil is separate from, but attached to the body of the pencil because the sharpened tip is merely a narrowed portion of the pencil body and performs a different function than the pencil body. Such a statement is unreasonable. The sharpened tip of a pencil is clearly part of the pencil rather than a separate element attached to the pencil body. Analogously, the narrowed portion of a stent is clearly part of the stent rather than a separate element attached to the stent, despite the fact that it may perform a different function than the wider portion.

2. Claims 3, 8-13, 16, 20, 22, 24-26 and 36 depend from Claim 1 and distinguish over *Yassour* for at least the reasons stated above in connection with Claim 1.

B. Rejection Under 35 U.S.C § 103(a)

1. Claims 18, 23, 27-35 and 37-39 depend from Claim 1 and distinguish over *Yassour* for at least the reasons state above in connection with Claim 1. Accordingly, *Yassour* alone, or combined with either reference, fails to teach or suggest each and every element of Claims 18, 23, 27-35 and 37-39 and thus, Claims 18, 23, 27-35 and 37-39 cannot be unpatentable.

2. Independent Claim 40: Independent Claim 40 includes a filter having a plurality of divergent legs, each of which includes a cannula and a lumen, a first attachment member separate from, but attached to at least one of the divergent legs, a stent, and a second attachment member separate from, but attached to the stent.

The first and second attachment members are separate from, but attachable to one another to releasably attach the filter to the stent. The first attachment member includes at least one attachment wire attached to a retrieval connection member and extending through at least one lumen of the plurality of divergent legs. An upward motion applied to the retrieval connection member disengages the at least one attachment wire of the first attachment member from the second attachment member.

First of all, Claim 40 includes the limitations recited in Claim 1 as mentioned above. Thus, *Yassour* fails to teach or suggest each and every element of Claim 40 for at least the reasons provided above with respect to Claim 1 and *DeVries* fails to cure the deficiencies of *Yassour*. Moreover, the Examiner has acknowledged that *Yassour* fails to disclose an attachment wire extending through the lumen of the asserted filter legs and combines *DeVries* with *Yassour* to teach such limitation.

Contrarily, *DeVries* teaches struts 24 and an anchor member 30, both of which are covered by an insulating layer 39. The asserted legs, i.e., struts 24, do not comprise a lumen. Thus, the asserted attachment wire, i.e., the stem 32, cannot possibly "extend through at least one lumen of the plurality of divergent legs." The Examiner's Answer states that "[s]ince the link (40) comprises a bore/lumen, the filter leg also comprises this bore/lumen." The link 40, however, is separate from and attached to an end of the strut 24; it is not a lumen extending through the strut 24.

Moreover, the asserted attachment wire 32 does not "extend through" a lumen of the asserted legs 32, but merely forms an interference fit with the first bore 42 of the link 40. (Emphasis added). See col. 5, lines 28-30; see also col. 5, lines 23-26: "Stem 32 of anchor member 30 is attached to free end 28 of strut 24 with a sacrificial

link 40." Thus, the asserted attachment wire 32 is attached to a free end 28 of the asserted leg 24. This clearly does not anticipate an attachment wire *extending through* at least one lumen of the plurality of divergent legs and being attached to a retrieval connection member, as recited in Claim 40. (Emphasis added).

Moreover, responsive to the Examiner's statement that the "link of *DeVries* overlaps the claimed retrieval connection," the link 40, i.e., the asserted retrieval connection point, is attached to the free end of the strut 24. Thus, the asserted retrieval connection point 40 is not disposed such that an attachment wire must extend through a lumen of the strut 24 (as opposed to a lumen of the retrieval connection point, i.e., the link 40 itself, according to the Examiner's interpretation) to attach thereto.

Accordingly, *DeVries* cannot possibly cure the deficiencies of *Yassour* to teach or suggest each and every element of Claim 40. The Examiner has clearly misrepresented the teachings of *DeVries*. *DeVries* not only fails to teach or suggest a plurality of legs comprising a lumen and an attachment wire extending therethrough to a retrieval connection member, there is no teaching in *DeVries* of applying an upward motion to an alleged retrieval connection member to disengage the asserted attachment wire from a second attachment member. Thus, the combination of *Yassour* and *DeVries* fails to teach or suggest each and every element recited in Claim 40.

Further, even if, for the sake of argument, *DeVries* taught a filter leg having an attachment wire disposed within a lumen thereof and attached to a retrieval connection member, combining *Devries* with *Yassour* to teach such limitations is improper. Not only is the combination improper because *Yassour* fails to teach or

suggest a plurality of divergent legs in the first place, as provided above in connection with Claim 1, there is no reason to provide a lumen, with an attachment wire disposed within, through such fine, woven wires. "It can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in a way the claimed new invention does. This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known." *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007).

Since the wires in *Yassour* are woven, rather than divergent, this "upward motion applied to the retrieval connection member" limitation would be entirely negated. Accordingly, not only does the combination of *Yassour* and *DeVries* fail to teach or suggest each and every element of the claimed invention as recited in Claim 40, such combination is improper and thus, Claim 40 cannot be unpatentable.

3. Independent Claim 44: Independent Claim 44 includes a filter having a plurality of divergent legs, a first attachment member separate from, but attached to the second end of at least one of the plurality of divergent legs, a stent, and a second attachment member separate from, but attached to the stent. The first and second attachment members are separate from, but attachable to one another to releasably attach the filter to the stent. The stent comprises a frame including a closed circumference, the frame having a plurality of sides interconnected by a series of bends, each bend including a coil. At least one of the divergent legs of the filter is releasably secured at the second end to at least one of the plurality of sides of the stent by the first and second attachment members. The filter and the stent are

releasably secured to one another between an unattached position in which the first and second attachment members are not attached to one another and an attached position in which the first and second attachment members attach to one another.

Claim 44 includes the limitations recited in Claim 1 as mentioned above. Thus, *Yassour* fails to teach or suggest each and every element of Claim 44 for at least the reasons provided above with respect to Claim 1 and Goldberg fails to cure the deficiencies of *Yassour*. Accordingly, *Yassour* alone, or combined with either *DeVries* or *Goldberg*, fails to teach or suggest each and every element of Claims 18, 23, 27-35, 37-40 and 44 and thus, Claims 18, 23, 27-35, 37-40 and 44 cannot be unpatentable.

V. CONCLUSION

For at least these reasons, and the reasons previously set forth, Applicants respectfully submit that the outstanding claims are patentable and thus respectfully request that the claim rejections be withdrawn.

Respectfully submitted,

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